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ALABAMA GIRLS' INDUSTRIAL SCHOOL

BULLETIN

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THE ALABAMA GIRLS' INDUSTRIAL SCHOOL
MONTEVALLO, ALABAMA

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OF THE

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MONTGOMERY, ALA.,

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EDITORIALS

THE BULLETIN.

During the session of 1906-'07 the Bulletin was established, and two numbers were issued. Number one contained a condensed statement of the biennial report of the President. Number two gave a complete list of all former students with their present address; this is an especially interesting number to those who have attended this school. Copies can be obtained by applying to the Secretary. It has been decided to issue the Bulletin as a regular quarterly journal, conforming to the regulations of the post office department in order that second class postal rates might be obtained. This rate has been granted. The new series, number one, was published in July, 1907, and contains a general catalog for the session of 1906-'07.

ELEVENTH ANNIVERSARY.

On the twelfth of October our school completed its eleventh year. Since it was opened for the reception of students its record during these eleven years has probably been without a parallel among educational institutions. In 1906, the completion of the first decade, was appropriately celebrated by the Faculty and students. After the opening of the present session it was decided by the Faculty to have this opening day celebration as an annual event in our curriculum. The time was too short to make much preparation for this year's birthday party, however, an interesting program was hurriedly arranged, and the exercises were much enjoyed by the very large audience that was assembled on that occasion. A copy of the program is printed elsewhere. The School feels that it was highly honored in having with us on that occasion, Mrs. J. D. Matlock, representing the Alabama Federation of Women's Clubs and Chairman of the Committee on State School Improvement Association. Mrs. Matlock gave a very interesting talk on the subject of School Improvements, and organized among us an enthusiastic School Improvement Society. Practically every member of the Faculty and every student and many of the citizens of Montevallo have joined this organization, the aim and purpose of which is to put forth every effort toward beautifying and improving the grounds and buildings of our beloved Institution.

Y. W. C. A. CONFERENCE.

Perhaps no department of our school has done more efficient work than our Y. W. C. A. During last session arrangements were made for the employment of a General Secretary. Miss Mary DeBardeleben was called to this important position. She has entered upon her work and her influence is felt in every department of our school. Upon her suggestion a Conference was held in our midst on October thirteenth and fourteenth. Representatives came from the University of Alabama, Southern University and the Alabama Normal College. Addresses were made by Miss Fitch, Travelling Secretary of the National Y. W. C. A., for the Gulf States; Mr. T. H. Beverley, General Secretary of the University Y. M. C. A.; Rev. T. K. Roberts, Oxford, Ala., and Rev. Raimundo de Ovies, of Birmingham, Ala. These addresses were all inspiring in thought, and produced a very profound impression upon our student body. This Conference will hereafter occur annually and it is the hope and desire that a larger number of our educational Institutions will be represented at future meetings.

OUR ENROLLMENT.

At the time of going to press we have enrolled 314 students, and have been forced to decline about 500 applications for the want of boarding accommodations. It is certainly a great misfortune to our State that so many ambitious girls are deprived of the privilege of a chance of attending the only school in the State that was established for the purpose of giving that technical training that is specially designed for women; however, we are glad to be able to state that next year we shall be enabled to accommodate a much larger number than we have this year. New buildings are now being erected and will be ready for use by the fall of 1908.

DR. SEALE HARRIS.

Upon the request and urgent recommendation of our College Physician the distinguished gentleman, whose name heads this article, was invited to lecture before our students on the evening of September twenty-second. Dr. Harris is a native of Georgia. He received his academic training at the University of Georgia and is a graduate of the Medical Department of the University of Virginia. He has taken a post-graduate course in several of the large Medical Colleges and Hospitals of New York City. He then practiced medicine for a number of years at Union Springs,

Alabama, where he rose to the front rank in his profession in our State. In 1906 he withdrew from the practice, and after taking a post-graduate course at Johns-Hopkins University, pursued his studies in the special line of internal diseases at the University of Vienna. On his return from abroad he was elected to the position of Professor of the Practice of Medicine in Medical Department of the University of Alabama at Mobile, where he is also engaged in the practice as a Specialist in Stomach Diseases. Dr. Harris is now one of the recognized authorities in his profession. Our school has ever given special attention to the health of its students. It believes in having them instructed along those lines so as to prevent sickness as far as possible. Dr. Harris's lecture has been specially helpful to us. It was written in such a simple style and with the absence of so many technical terms that it was readily understood and appreciated by every student. In order that our pupils may have further benefit from this able lecture Dr. Harris has been prevailed upon to give us a copy for publication, and it is found elsewhere in this issue of the Bulletin. Careful study of this address is recommended to all of our readers.



The Hygiene of Digestion

by

DR. SEALE HARRIS,

Professor of Practice of Medicine, Medical Department, University
of Alabama, Mobile, Alabama.

Young ladies of the Alabama Girls' Industrial School: I regard it a rare privilege to have the opportunity of addressing you, because I realize that I have for an audience the fairest representatives of the best families from every part of our State. Therefore, if I have a message, and I believe that I have one, its effect will be felt not only by the intelligent young women before me but through you will go into the homes of the educated classes in every county in Alabama.

Before beginning the discussion of my subject, I desire to congratulate you, young ladies, upon your wisdom in coming to this institution, because I regard it as perhaps the best industrial school in the entire United States; and I believe that the aims of this school to educate the hands and heart, as well as the brain, will tend more nearly to develop the perfect, womanly woman than any other system of education. This college, as begun and fostered by that broad-minded, philanthropist, Captain H. C. Reynolds, and as further built up by that great educator and grand man, Dr. F. M. Peterson, has attained a standard, and a standing, of which the people of the entire State of Alabama are justly proud. It is greatly to be regretted that you are deprived of the services of so able an educator as Dr. Peterson, but, since he felt that he was physically unable to continue his duties as President of this institution, it is particularly fortunate that you can have as his successor a man of such splendid intellect and fine executive ability as Dr. Palmer. With such a man as Dr. Palmer at the head of this school, with a corps of teachers so able and efficient as you have here, with the increased facilities for teaching, which through the wisdom of Governor Comer and the present Legislature will be installed, I believe that the future of this great institution will be even more resplendent than has been its past.

You are fortunate in many respects in being students in this institution, not only on account of the splendid educational facilities offered, but also in your dormitories and other arrangements for health and comfort. Having just enjoyed the gastronomic delights of your table for the usual evening dinner, I am sure that

the food as served here is all that could be desired; and when you are sick, mark yourselves as being particularly fortunate to be under the care of a physician so kind, so skilled, and so learned as Dr. Wilkinson.

You are fortunate in many other ways, but it is especially fine that you have for associates such bright and intelligent young ladies,

“Whose modest demeanor and graceful air,
Show that they are wise and good, as well as fair.”

I want to say to you that in my opinion this association with girls of like age and position in life is one of the most important features of a college course. I know that some of the teachers will consider it rank heresy to intimate that anything else compares in importance with what you learn in books, and I do not wish to be understood as saying that information obtained in books is not of importance; but the fact of contact with one's companions, the object lessons of right living and right thinking, which a college training gives, are among the most valuable factors in preparing you for the life that is before you. Physical education and the hygiene of living are also of very great importance in the education of the women of our country; but, unfortunately in some female colleges, this is given but little consideration. Not so, however, with this institution, which is founded upon the broadest principles, with attention to, and consideration for, every factor necessary for the education and development of the young women of our State for every vocation in life for which a woman is fitted, from that of stenographer to the queen of a home.

When I received the invitation to deliver an address before the young ladies of the Alabama Girls' Industrial School, many themes suggested themselves to me, because there are many things connected with medicine, or rather with physiology and hygiene, which should be known by every person. There is nothing, however, of greater importance to maintain health and promote long life, than to know why, what, when, and how, we should eat. There is more ignorance regarding eating and the physiology of digestion than almost anything else. I believe that improper eating has caused more deaths than has alcohol, for the reason that more people are guilty of the sin of intemperance of eating than are guilty of intemperate use of alcohol. The minister will preach for temperance in the use of alcohol, and he is right in it; yet immediately afterwards he may be intemperate in eating, and, I fear, if the jokes as told on the ministers are true, that the ministers can not be expected to do much preaching against the intemperance of eating. I have long wanted to preach a sermon on the sub-

ject of intemperance in eating, and you, young ladies, are the sufferers, because I shall give you some thoughts on that subject. I have seen so much of sickness, suffering, death, and sorrow from indigestion, the result of ignorance regarding the functions of the digestive organs, that I should like to do something to educate the people on this subject. And incidentally, I would mention that as many women as men, suffer from the consequences of intemperate and injudicious eating. The wife upbraids her husband for drinking, and I am sorry for the woman whose husband drinks, yet she may be just as certainly destroying herself by intemperate eating as is her husband by drinking.

Most people habitually over-eat, and there results what is commonly called an "indigestion" or "dyspepsia." Indigestion is usually considered a little thing, but it is not always as mild a disease as is generally supposed. A person says that he has "just a little indigestion;" but the trouble continues, and he dies from Bright's Disease; in "just an indigestion," certain poisons are formed in the intestines, the absorption of which causes the arteries to thicken and become brittle, an artery in the brain ruptures, and there is death from apoplexy, which began as a "simple indigestion." The heart in this way also becomes diseased from "just an indigestion." In some cases of indigestion, the food is not properly assimilated, and gouty and rheumatic diseases come on. An indigestion is always the beginning symptom of ulcer and cancer of the stomach, diseases which cause so many deaths. So also is "just a little indigestion" a frequent pre-disposing cause of tuberculosis, in that a poorly nourished body is a fertile soil for the germs of consumption. "Just a little indigestion" is, therefore, full of dangerous possibilities, and the object of my lecture is to endeavor to impress upon you young girls, who are now in the formative period of physical life, some of the truths regarding the physiology and hygiene of digestion, which will tend to keep you in health, promote long life, and make you more beautiful and attractive personally, by preventing indigestion and the more serious diseases resulting therefrom. I have therefore selected as my theme, "The Hygiene of Digestion."

Had you ever thought of why we eat? If this question were asked of you, young ladies, some of you would no doubt reply that we "eat because we have the appetite, because we want to; but that is not always true, since all persons have not the desire for food. Others would say that we "eat to live," which is one of the reasons for eating food, and still others will accuse their friends of "living to eat." The real necessity for eating comes from the fact that each hour, each moment, there are structural changes going on in the body for which certain kinds of food are required.

With each movement, as of the hands or feet, each meal that is digested, each lesson that is learned, there is oxidation of materials in the body and changes in structure of certain tissues, and for which certain foods are required. Then, too, the human machinery must be kept at the same temperature winter and summer, and fuel is required to furnish the heat; for this reason, less food is required in the summer than in the winter. If food is not furnished for combustion and transformation into energy, the fats and muscles of the body are burned; thus in starvation, there is loss of flesh, simply because from lack of food the tissues have been burned up, except the skin and bones, which are but poorly combustible.

There is an old saying that "the human body renews itself every seven years," but this is not true, because some structures of the body, as the epithelium of the skin and covering the tongue and other organs, are renewed daily, while the enamel of the teeth and hard bone may not be changed during adult life. For this renewal of tissue and for the sustenance of our bodies, foods are required.

In order for you to understand how food is changed into muscle, fat, and energy, I will mention the various groups of food stuffs and later will discuss briefly the physiology of digestion. The food required to maintain normal mental activity and bodily vigor is divided into five groups, viz:

First. *Proteids* or *albuminous foods*, which are also called *nitrogenous foods*, because the principle element contained in them is nitrogen. Examples of this class are eggs, meat, and fish, and these articles of nutrition are necessary for muscle making and renewal of other structures.

Second. *Albuminoids*, which, as the name indicates, are closely allied to the albumins. Gelatin is an example of this class and it plays but little part in the nutrition of a person.

Third. *Carbohydrates* (sugars and starches) such as rice, bread, cane-sugar and syrup, and honey, which contain the stored-up energy necessary for muscular exertion and for the performance of the functions of every organ in the body. The carbo-hydrates in producing energy also generate heat.

Fourth. *Hydrocarbons*, fats and butter and olive oil and cotton-seed oil, which also act as fuel in maintaining the temperature of the body, and they are also transformed into energy.

Fifth. The *salts* as sodium chloride, ordinary salt, and the extractives of meat, which are needed to produce the hydrochloric acid in the normal acid of the stomach, and which also act as flavoring for food, thus aiding digestion.

Some of the foods mentioned as examples of the five different

groups contain also other food elements; thus, meats and eggs contain not only the proteids but also fats and carbo-hydrates and salts; therefore, meat alone can not sustain life for a very great length of time. The breads made from wheat and corn contain not only carbohydrates, but also proteid material. Instinct has taught us the lesson that various kinds of food are required to sustain strength; thus, with meats we eat breads and with breads we eat butter, and so on.

The amount of food required to keep the body in a normal condition varies much in different individuals, and also as to whether or not the individual is taking active physical exercise or is at rest. Thus, a man working at hard labor requires about twice as much food as one who is resting in bed. Brain workers also require more food than is generally supposed, as one whose mind is at work requires increased nutrition to keep the brain and other organs of the body in normal condition. I presume that all of you young ladies are brain workers.

In discussing the physiology of digestion, I realize that I am handicapped by your lack of knowledge of technical terms which I will have to employ, but I shall endeavor to make the matter as plain as possible, though I must confess that before I have finished with it, you will realize that the human body is a piece of complicated machinery. In this connection, I am reminded of a story as told by Henry Grady. He said that on one occasion an old minister was invited to deliver a sermon before the students of a boys' school. The boys found out the chapter of the Bible which he expected to read and pasted two pages together, so that instead of turning one leaf the minister turned two. The minister began reading: "When Noah was one hundred and twenty years old, he took unto himself a wife who was———" then he turned the page, "——— one hundred and forty cubits long, forty cubits wide, built of gopher wood, and lined with pitch inside and out." He read it over the second time to be sure that he was not mistaken in what he had read. He then looked up and said to his audience: "My friends, I have been reading the Bible for many years, and this is the first time that I have ever seen this in it; but it is here, and I accept it as an evidence of the assertion that we are fearfully and wonderfully made." I suspect that before I have finished you will agree that man is "fearfully and wonderfully made."

In briefly mentioning the salient points regarding the physiology of digestion, I would stress the fact that digestion really begins in the mouth. When food is taken into the mouth and chewed, saliva begins to flow from the salivary glands and mix with this food. The saliva is alkaline in reaction and contains a digestive

ferment called ptyalin, which plays its part in digesting sweets and starches. Not only is the saliva necessary for digestion, but much of the digestion in the stomach depends upon how thoroughly the food is disintegrated by the teeth. It has also been shown that food taken into the mouth and chewed excites the action of the glands of the stomach and prepares the stomach for the reception of the food. The food as solid passes from the pharynx (throat) into the oesophagus (gullet) and thence into the stomach. The stomach is a muscular sack which normally holds about three pints, and lies largely under the ribs on the left side. Many of you have thought that you had pains in your heart, when in reality the pain was in the stomach. The stomach acts as a reservoir in which the food remains and softens; then it is acted upon by the digestive secretions from the stomach. In the lining, or the mucous membrane, of the stomach, there are glands which secrete a weak acid, hydrochloric acid, and two ferments, pepsin and rennet. The hydrochloric acid aids in softening the food so that the pepsin and rennet can perform their functions in digesting proteids and in co-agulating milk. Both of these digestive ferments can act only in the presence of hydrochloric acid. The stomach has three layers of muscles, the contraction of which reduces the food to fine particles, so that it can be digested. By a selective action, the food which has been digested so far as the stomach is concerned, passes from time to time into the small intestines, where it is further digested. If in from four to seven hours all the food is not broken up sufficiently fine, the stomach empties itself anyway, the solid particles passing into the intestines. The stomach also has an absorptive function and water and alcohol drinks are absorbed directly from it. Water, however, is not absorbed when there is solid food in the stomach, but from an empty stomach it is absorbed in from ten to fifteen minutes. It should be remembered that there is very little nourishment absorbed from the stomach.

The food, after it has been acted upon by the stomach juices and passes into the intestines, is called chyme, and it is in the intestines that the food is largely digested. The small intestine is about twenty feet long, and, like the stomach, has a lining membrane and three layers of muscle. The secretions from the small intestines, however, have but little digestive action, the digestion there coming largely from the secretion of the pancreas, which passes from that organ into the small intestine near its origin. The pancreas secretes a substance which digests starches and sweets, and also one for digesting proteids which have not been digested in the stomach, and also a substance which emulsifies the fats. The liver secretes bile which also empties into the small intestine at

the same point as the pancreas. The function of bile is first to render the intestinal contents alkaline, since it is only in an alkaline medium that the pancreatic juice can act, and the bile also aids in emulsifying fats. The bile has another important function in that it is antiseptic, since it prevents the multiplying of the germs in the intestines which cause fermentation and putrefaction of food. From the small intestine is absorbed the products of digestion which are carried by the blood, first to the liver and the proteid materials are changed so that it is in proper condition to be carried into the muscles and various parts of the body. Without the liver to produce these changes in this nourishment, poisons would be absorbed which would destroy life in a short time. The sugars and starch foods which have been digested are also carried to the liver in the blood, and they are changed and stored up as glycogen, which is sent to the various parts of the body to supply energy as is desired. The fats which are really not digested but simply are broken up into fine particles or emulsified, are carried directly into the circulation through the thoracic duct.

Now let us go briefly over the digestion of various kinds of food. Meats are digested largely in the stomach, and partially in the intestines. Sugars and starches, as bread and potatoes, are begun to be digested in the mouth by the ptyalin of the saliva, and some digestion takes place in the stomach, but most of the digestion of these substances takes place in the small intestine. Fats, as stated, really require but little digestion, but after emulsification in the small intestine enter into the circulation without being changed.

Most of us habitually eat too much, especially of meats, which are very hard to digest. The experiments of Professor Chittenden, of Yale University, which were carried on for several months with subjects in the various walks of life, as laymen, college students, and college professors, show that man can thrive and perform as much physical and mental labor upon less than one half the amount that the average man consumes. The life of Cornaro, an Italian who lived in the fifteenth and sixteenth centuries, also shows that man can live on very much less food than the average person eats. Cornaro, who had been a debauchee up to the age of forty, because of an illness resulting from excesses in eating and drinking, was compelled to go on a restricted diet. This he learned to like, and he lived to be more than a hundred years old, though during the last sixty years of his life he lived almost entirely as a vegetarian, consuming not more than one third the amount of food, per day, as the average individual. He wrote several essays on the methods of living, and upon his life, which are very interesting, and give us a great deal of information regarding diet. As

I have said, most people eat too much, particularly of meats; yet some proteids are required in order to keep in health. The purely vegetarians are not well nourished, except those who drink milk, eat butter, and eggs, which are really animal foods.

In every digestive disease which I treat, I inquire into the habits of a person regarding eating, as to how much they eat, when they eat, and how they eat; also as to their habits of work and their conditions of life which could affect digestion. Assuming that all of you are healthy and engaged in the occupation of a student, it may be well for me to suggest for you such a daily regimen which will tend to keep you in health.

Rise at 6 a. m.

Drink one or two goblets of cold water.

Take a cold bath, either a short plunge or sponge bath, certainly of the chest and feet, followed by a brisk rubbing of the skin until it is reddened.

Breakfast at 7.

Recitation and study from 8 to 12.

12 to 1, luncheon or dinner.

1 to 4, study and recitation.

4 to 6, out-door exercise.

6 to 7, dinner or supper.

From 7:30 to 9:30, study.

Retire at 10.

I am quite sure that it is wise to take a light breakfast. While I am Southern to the core, yet I am sure that we err in having the heavy breakfasts with meats, cakes, waffles, and syrup. The European breakfast consists of bread, butter, and half cup each of hot milk and coffee. I think that it is well to add to this fruit before breakfast and perhaps eggs and breakfast bacon. In my opinion, the light luncheon should be taken at noon and the heavy meal of the day taken after the day's work has been completed. I know that this is contrary to the habits of most of you, but I believe that more work and better work can be accomplished in the afternoon, when a light luncheon is taken instead of the heavy dinner. Luncheon should consist of perhaps some form of soup, one or two vegetables, bread and butter and milk; possibly some form of sweets as preserves or jelly. Dinner should be the principal meal of the day, and as much taken at that time as in both the other meals. It should consist of a soup, vegetables, particularly the green vegetables, rice, and some form of meat, and of course bread and a simple dessert. Dinner should be the only meal at which meat is served. Many people argue that eating a heavy meal in the evening causes them to be restless at night,

which will unquestionably be true, if one eats a heavy meal at noon, but with the light luncheon at noon, the heavy evening meal is thoroughly digested and followed by healthy, sound sleep.

The *appetite* is the best guide as to what one should eat, though frequently from habit or from bad training, the appetite is perverted. Appetite, however, is only stomach-deep, and its demands should not always be heeded. Many persons who are over-worked from study or other ways have no appetite; yet they should force themselves to eat plenty of nourishing food. If the average school-girl should give way to her appetite for candies, ice cream, cake, and other sweets, there would be no room nor desire for other forms of nourishment.

Idiosyncrasy of persons to certain articles of diet should be remembered. The old adage of "what is one man's meat is another man's poison," is a very true one. Thus, oysters and other shell fish are actual poisons to some people, while to others they are delicate and nutritious food. Mutton is another article of diet which will not agree with all, though most people enjoy it, and it is one of the most easily digested forms of meat.

The *mastication of food* is of a great deal of importance and should be thoroughly carried out. There have been many rules for chewing food; thus, Gladstone chewed each morsel of food twenty-six times before swallowing. The old homeopathic way of expressing it is impressive and is easily remembered: "One chew for each tooth in the head and two chews for each tooth that is gone." The Hindu thinks it is sinful to swallow solid food; for that reason they chew everything until it becomes a liquid, and the Hindus are said to have less indigestion than any other people in the world. When food is very thoroughly masticated, very little swallowing is necessary, as when it becomes mixed with saliva and liquified, it slips down into the stomach without necessity of swallowing. If one will chew the food thoroughly, less food will be required, because all of the nourishment of the food which is taken will be obtained, whereas when mastication is not thorough, much of the food is wasted. The appetite is satisfied with much less food, if it is thoroughly masticated.

The care of the teeth is important in digestion since there are certain forms of indigestion which are due to decayed teeth. Immediately after eating, it is well for one to retire to the room and cleanse and brush the teeth. The teeth should be brushed after each meal, but before brushing it is well to remove the food particles from between the teeth by means of a tooth pick, or what is better, silk floss.

Plenty of time should be taken at meals, and eating should be interspersed with pleasant conversation. In fact, it is well to

avoid any disagreeable or unpleasant subjects during meal time. At least half an hour should be given for breakfast and luncheon, and three quarters of an hour for dinner, the heavy meal of the day. The state of the mind during and after eating has a great deal to do with digestion. Experiments on dogs have proven this. The dog who, while he was eating and afterwards, is teased and worried, the stomach then opened up and its contents removed, shows that the food has not been digested; while with the dog whose meal was eaten peacefully and who was permitted to lie down after eating shows perfect digestion.

Worry and overwork are among the important causes of indigestion, and one should not eat while worried or under mental strain, but should rest for a time before eating. I had an excellent illustration of this at the closing of the last term of the Medical Department of the University. The boys had worked very hard on examinations, many of them having been overworked, and a large proportion of them developed symptoms of indigestion which were promptly relieved when they had sufficient rest. Studying immediately before and immediately after meals should not be done, because it takes the blood to the brain when it is needed for the digestive organs. It has been noted that persons of a very jealous or envious disposition are more apt to have indigestion than those of joyous, happy ones.

Eye-strain will also interfere with digestion, as it does with the functions of any part of the body under the control of the nervous system. I recently had such a case of a young woman who had a severe stomach trouble which was not relieved by the methods of treatment which were successful in most similar cases; I found that she had been doing a great deal of fine fancy work and that she had symptoms of eye-strain. I sent her to an oculist who fitted her with the proper glasses; she gave her eyes the rest which they needed, and the stomach symptoms disappeared.

Exercise in the open air is important for perfect digestion. If I had complete control of a female college, I would lock the doors of the girls' rooms, with their books in them and make all the girls spend two or three hours a day in the open air, walking, playing tennis or other out-door exercise. On rainy days this time should be spent in a well ventilated gymnasium. Physical culture is a most important part of a girl's education, and is just as important to them as what they learn from books. It is also necessary to have plenty of rest, and eight hours sleep is the minimum for any person. The old adage of "Eight hours work, eight hours recreation, and eight hours for sleep," is founded on physiological reason.

Bathing. One should never eat immediately after a prolonged bath, because at that time the blood is at the surface of the body

when after eating it should be in the internal organs for digestion. The quick, cold bath before breakfast, however, will rather aid digestion.

Drinking-water. The system requires about eighty ounces (five pints of water each day, but it should be remembered that water is a constituent element of most foods. Thus, milk is ninety per cent. water; there is water in eggs, meat, and almost every kind of food. One or two goblets of cold water taken an hour before breakfast is an excellent thing for digestion, because it in a measure cleanses the stomach and prepares it for the morning meal, and also aids in the flushing out the "sewers" of the system. Not more than one goblet of water should be taken at a meal and even that is not necessary when milk or other liquids are taken. Too much water in the stomach at meal time, interferes with digestion for the reasons that, first, it dilutes the digestive juices; second, it is not absorbed from the stomach for a long time, and the muscles of the stomach become relaxed from the weight of the water. Ice water, while not as harmful as many faddists would have us believe, should not be taken to excess.

Coffee. Coffee has almost gotten to be a necessity with Americans. While there is very little nutrition in it, yet with those accustomed to its use, it serves its purpose, by stimulating the nervous system to action at the beginning of the day's work. Still, I would not advise any one who is not accustomed to drinking coffee to take it up, because it is wholly unnecessary. Too much coffee is very harmful, and no doubt it does interfere with the digestion when taken too often or in too large quantities. It is certainly best to restrict one's self to the one cup of coffee at breakfast. *Tea* has much the same effect as coffee, though it seems that when taken in the afternoon, two or three hours before the evening meal, as the English take it, it does not interfere with digestion. *Cocoa* is somewhat the same as coffee and tea, though it contains more nourishment. The habit of drinking soda-water is not conducive to good digestion, though an occasional glass is not so baneful as some would have us believe.

Coca cola, in my opinion, is doing a great deal of harm, because each glass of coca cloa contains a little more caffeine than does a strong cup of coffee. The "coca cola habit" can be formed, and, while not so serious as whiskey or drug habits, it is deleterious to health. A friend of mine in Atlanta, a stomach specialist, asks every patient who comes to him if he drinks coca cola. This physician, who has treated thousands of cases of indigestion, says that coca cola in that section of the country is responsible for a great many of his cases of nervous indigestion. I have seen many cases of indigestion from the excessive use of coca cola, and I see

the same type of dyspepsia among the business men of Mobile who are in the habit of going to the coffee-houses and drinking several cups of coffee daily. I would therefore advise you to beware of coca cola.

Improper cooking is responsible for much indigestion, and I am sure that the hot biscuits that we have in the South really are very hard to digest. It was not so noticeable when our fore-fathers were getting plenty of our-door exercise, but now under the changed conditions of life, the heavy biscuits which are eaten by some people are responsible for much indigestion. Since biscuits are made up of flour, a carbo-hydrate, and the ptyalin of the saliva aids in its digestion, they should be chewed very thoroughly before swallowing. Meats are more digestible in the raw state than when cooked, but cooking is necessary to make meats palatable and wholesome. The best way to cook meats is to submit them to very high temperature a few minutes, which co-agulates the albumin on the surface of the meats and keeps in it its juices. Meat should never be fried, because, if cooked that way for any length of time, the albumin becomes coagulated, which makes it much more difficult of digestion than when prepared in other ways. Frying also changes the fats, which ordinarily are easily digested, into fatty acids, which act as irritants to the stomach, and interfere with digestion; for that reason, butter when heated is harder to digest.

While I realize that anything I may say in objection to wearing the present *tight-fitting corsets* would have no weight with you, or any other woman, yet I am sure that tight-lacing does interfere with digestion, in that it compresses the organs of digestion and prevents their performing their functions normally. The waist, which measures normally thirty inches, when compressed by a corset until it measures twenty-five or six inches, crowds the stomach, liver, kidneys, and intestines out of their normal position. For this reason the majority of women before the age of thirty-five have a condition, in which there is a relaxation and an atrophy of the abdominal muscles and also of the muscles of the stomach and intestines, which results in a form of indigestion called gastraptosis and which is exceedingly difficult to relieve. The sedentary habits of women is one of the principal causes of indigestion, and, if you would be well and live long, see to it that you are out in the open air for a sufficient length of time each day.

In conclusion, I would say to you: be good, be happy, eat regularly, eat slowly, be careful what you eat, get plenty of exercise, plenty of work, and enough play, and you will have the roses in your cheeks, you will be more attractive personally, you will live longer, and may all your days be crowned with health, happiness, and sweet content.

Eleventh Anniversary A. G. I. S.

PROGRAMME

SongA. G. I. S.

Prayer.

Prelude, "Raindrop" (Chopin).....Miss Sarah Crawford.

"Petite Symphonie".....Misses Lyman and Gay.

Looking Backward Miss McCary.

"Messenger Swallow" (Godefroid).....Miss Kethleen Shivers.

"My Home is where the Heather Blooms".....Miss Georgia Dawson.

Looking Forward.....Miss Florence Patterson.

"A Pledge in Song."

Address and Organization.....Mrs. J. D. Matlock.



Extracts from the Report of the President to the Building Committee

The President was requested by several members of the Board of Trustees to make a full report to the Building Committee at its meeting in Montgomery, on October eighteenth, concerning the work of the school during the present session; also its needs in building and equipment for the future welfare of the Institution. We herewith give some extracts from that report:

The Alabama Girls' Industrial School has been in progress for eleven years and during that time it has been embarrassed perhaps as no other school in the State in that it has ever had more applications for admission than it could accommodate. The demand for admission has increased year by year until this fall, when we have enrolled over 300 and have declined about 500 for the want of boarding accommodations. Note too that when one is declined others from that neighborhood are deterred from applying so we think we can safely say that if we had had the room we would have had at least one thousand students this session. This would have been accomplished without any special advertising or solicitation. Had we advertised as other schools are doing and opened the doors to pupils from other States there is no telling how many pupils could have been obtained. It is easy to account for the strong hold that the Institution has upon the people of our State: 1st. The able Faculty, all of whom are earnest, zealous and enthusiastic in their work, perfect harmony prevails in and among the various departments. 2nd. The courses of study are thorough and practical, giving the girls the highest general culture and at the same time technical training in various branches by which women usually earn a livelihood, but above all special attention is given in every way towards preparing them for the delicate and responsible duties of home life. 3rd. The high, healthful and retired location. The pupils are here removed from many of the petty annoyances that are so common around some other schools. Few Institutions can compare with us in our splendid health record of the past. 4th. Close proximity to a community that is noted for its culture and refinement. The people of Montevallo give the school authorities their heartiest co-operation for the best and highest interests of the pupils. 5th. The great interest that has ever been taken in the physical and moral as

well as mental development of the students. The girls are growing strong, healthy and vigorous, the home life that is provided for them is conducive to health and happiness. The general tone of the girls in their relations to one another, to the officers of the school and to others, is the very highest. In my long career in educational work I have never seen students more careful, thoughtful, painstaking, diligent and enthusiastic in their work. 6th. The habits in thrift, industry and economy that are acquired and encouraged here. Many girls are given employment that does not materially interfere with their studies. These girls perform this work in a highly satisfactory manner as one might naturally expect, for intelligently trained labor is always better than the untrained. They are held in the highest esteem by Faculty and students because of their efficiency. The school charges are made low to enforce rigid economy and to keep the school within the reach of every ambitious girl. We have representatives from among the rich, those in moderate circumstances and from the very poor. Extravagance in dress and vain display is not countenanced. Through the influence of our domestic arts departments all are enabled to appear well and that too without a foolish waste of money. Here indeed is true democracy taught and exemplified among the young women of our land.

While such beneficent results are being obtained it must be borne in mind that it is all done under very trying conditions and we are far from accomplishing in many lines many things that could and ought to be done. Then too only a small part of those desiring this instruction are permitted to do so. A far greater number are turned away perhaps never to receive such instruction because our great State has not provided the room.

The proper education of our women has too long been neglected. Our Southland is developing along material lines at a greater rate perhaps than any other country. This has brought about a changed condition of affairs in every walk of life. The labor question, and especially for domestic service, is becoming more and more perplexing. Our very home life that has ever been the pride of every Southerner is now being threatened because of these changed conditions. The remedy can only be found in the proper training of our women. They must be given the opportunity for receiving not only the highest culture, but they must be trained in technical skill in all those questions pertaining to home economics, home sanitation, the domestic arts and sciences, the plans for decorating and beautifying the home, and, too, the accomplishment of these results with a proper economy of money, labor and mental effort. Only in this way can they expect to be prepared to cope with the great problems that confront us today. This school was

designed for this great mission and as far as it is able it is trying to be true to its mission.

The originators of the idea for this Institution were wise in their conception, but it is doubtful if they in their wildest fancy could have foreseen the great possibilities for this undertaking. They were truly building wiser than they knew.

As said above the school was launched upon the State just eleven years ago. The appropriation was very small and wholly inadequate for the demands. Succeeding Legislatures have increased from time to time the amounts for buildings and maintenance, but these were never sufficient to enable those in charge of affairs to take a comprehensive view of a proper vision for the school. The necessities of the hour were always so overwhelming that much of the money appropriated had to be used in throwing up temporary structures and providing temporary equipment for the double purpose of carrying on the school and at the same time to convince the people of the State of the necessity for such a school. There are no longer any doubters and the day of temporizing has passed. It is time that we should look at the school as it is and get a proper vision for the future.

The State has two great Institutions for the higher education of its men and every citizen is proud of them and wants to see them strengthened in every way possible. This is the only one for the general training and all round development of its women. It should be, and we believe is the earnest desire of every one, that this Institution should be placed upon a basis that will enable our girls to receive here in our midst under our own influence the highest and best cultured and technical training that can be obtained anywhere.

Our dormitory accommodates about 250 boarders. While it is an excellent building in many respects yet in arrangement of rooms and in modern conveniences it was very defective before the repairs, remodelling and renovating that we have made this summer. As far as this work has been completed the building is now perhaps the best dormitory for girls that can be found anywhere.

While the present Legislature has been more liberal than all others in appropriations for this school, having given \$200,000.00 in four annual installments of \$50,000.00 each, yet this amount is not sufficient to provide for the needs and demands that are pressing upon us at this very time. The Committee has wisely decided to make no improvements or enlargements except such as will be permanent.

We have purchased the tract of land forming the water shed of the springs from which our drinking water is supplied. The

Springs have been put in a thorough sanitary condition and all possible dangers of contamination removed.

The west wing of the dormitory has been remodelled and the contract let for erecting, heating, lighting and plumbing additional dormitories for the accommodation of 250 more pupils. This will enable us to care for 500 boarders next session. The above mentioned purchases, improvements, contracts, necessary equipment and furnishing will cost in the neighborhood of \$150,000.00, which is three-fourths of the total appropriation, leaving only \$50,000.00 which is not available until 1909.

Besides the above improvements it must be noted that the kitchen, store rooms, laundry, electric light and power plant are too small for our present number of students. Each is taxed already beyond its capacity. Before we can open next September these departments must all be more than doubled in size. The present laundry room with some changes can be utilized for the enlarged kitchen and store rooms. A new power and electric plant should be built and equipped as early as practicable. A separate building as an infirmary should be erected also as it is not wise, safe or prudent to be keeping those that are sick in the dormitory where such a large number of students is housed.

Our Mountain Springs furnish enough pure freestone water for domestic purposes for any member of students that we may have at any time, but they do not give a sufficient supply for the laundry, boilers, bath and toilet rooms and protection against fire. Water for these purposes can be obtained near the school building, another tank should be erected at once in order that there may not be at any time any scarcity in the water supply.

To build and equip these various items enumerated, all of which will be sorely needed before the session of 1908, will probably take more than the last installment of \$50,000.00, which is not available until 1909.

The buildings for recitation and laboratory purposes are, in the main temporary, unsightly, uncomfortable, unsanitary and in almost every way unsuited for obtaining good results in our teaching. Besides there are not enough rooms for our present purposes, in a few instances two teachers are compelled to occupy the same room with their classes. Many of the music pupils are compelled to practice during recreation periods because of the lack of rooms. It will readily be seen that nothing but general confusion will be the result when the number of students will be doubled. We should have erected, as soon as practicable, a large modern well equipped building suitable for giving the best instruction in all academic and technical subjects. Along with this there should be a comfortably well ventilated study and assembly

hall. Such a building is as much needed as the dormitories, as there is no use in allowing girls to come here unless we give them the instruction they are seeking. This building should be made large enough for 1,000 students as it is only a matter of a few years when we shall have that number and perhaps twice that number. To erect and equip such a building it will take at least \$100,000.00.

While there are advantages for the girls in being in a small place yet there are some disadvantages to the authorities in providing food for the boarding department. Milk in sufficient quantities cannot be obtained to say nothing of the quality. Good butter at a reasonable price is out of the question. It seems to be necessary for the school to have its own dairy. The officers of the school are annoyed with the milk and butter question more than with all others combined. Similar Institutions in South and North Carolina have found it necessary to establish dairies and they report that they are very successful. In connection with the dairy for practical use we should establish a school of instruction in this line so that our girls may have the opportunity of studying scientific dairying. This is being done very successfully in many States notably in Wisconsin. There is no subject on which our people, especially the women, so sorely need technical instruction as they do in the care of milk and butter. Our school already owns a tract of land that is in every way suited for a dairy farm.

The new department of Horticulture and Floriculture is proving to be a very valuable addition to our course of study. Plant Culture is now being given to every class. This calls for the immediate construction of green houses and other equipment. This study will contribute more than any other to the technical skill of our girls in beautifying their homes and thus materially contributing to the pleasures of the home life of every citizen whether he lives in the city or in the country.

The enlarged equipment and greater number of pupils will demand more instructors, besides the additional cost of keeping up the larger establishment. Our present income from the State for maintenance, when the high price for everything is considered, is not sufficient to keep up the school. To properly maintain the high standard in technical subjects that this school should maintain will require more than we have been able to expend in that direction. Our income for maintenance should be increased to \$50,000.00 per annum. Even then we would be far behind what other States are doing for their Industrial Schools. South Carolina gives annually for maintenance \$62,000.00 and income from other sources about \$18,000.00, total \$80,000.00. North Carolina gives annually for maintenance \$70,000.00, income from other

sources \$24,500.00, total \$94,5000.00. The official figures from the Mississippi School are not at hand, but it is known that the Legislature gives to that Institution over \$100,000.00 per annum. Georgia and Louisiana likewise give more for their Industrial Schools than we do.

Our courses of study should be as soon as practicable enlarged so as to fit our girls who must seek employment for a livelihood to be able to fill the highest and most responsible positions that are open to women. High Institutions of learning in our State and in other States are applying to us for technically trained young women for position as teachers with good salaries. Large business houses are making the same requests. All of them want highly cultured and refined as well as technically skilled helpers. We are not in favor of putting the requirements for admission too high, but we should very soon add other courses at the top that our own girls may be able to command the best salaries offered to them.

It is therefore earnestly urged that our Legislators be requested to increase our annual income from \$36,000.00 to \$50,000.00 per annum and that the appropriations for buildings and equipment be increased \$100,000.00 and that the whole amount be made available when needed.

Very respectfully,

THOMAS W. PALMER,

President.





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